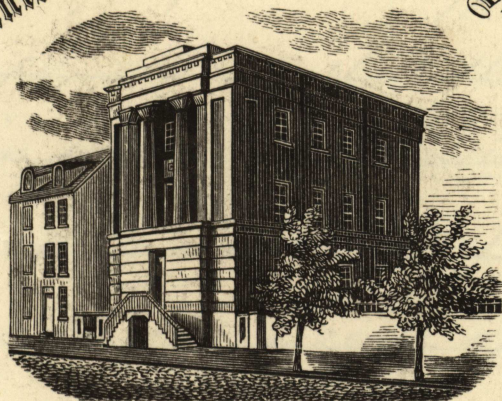


Phthisis Pulmonalis

RESPECTFULLY SUBMITTED TO THE FACULTY

of the

Homoeopathic Medical College of Pennsylvania,



FOR

The Degree of Doctor of Medicine

BY

Wm. Cornell Chambers.

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Phthisis Pulmonalis.

As this form of Consumption has engaged the attention of medical men for centuries, and exhausted all the resources of the profession to effect a cure—it is, perhaps, not expected that, a medical novice in writing his Thesis—one of the conditions by which he claims an examination for the Degree of Doctor of Medicine, should after the failure to ascertain the true cause of Phthisis, by such men as Carl Rokitsansky, Laennec, Van der Kolk, Rainey, Bennett, and a host of others, of equal celebrity, contribute any hypothesis worthy of special con-

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sideration. But, their failure should, I think, neither debar nor discourage others — therefore, I have no apology to ^{offer} to those to whom I am about to submit this paper.

I am well aware if I fail to account for the deposit of tubercular matter upon Physiological principles, others, old as teachers and writers, have done the same. However, if I fail in the estimation of those who are competent to judge, I do not claim the failure of others as an excuse. I believe that man has been endowed by the Great Creator with intellect, which, by systematic culture is capable to comprehend

and explore every intricate secret of nature.
 Therefore, I shall from the valuable physi-
 ologico-pathological facts clearly established
 by some of the above named authorities, hy-
 pothesize, at least, one and, perhaps the
 principal predisposing cause of Phthisis
 Pulmonalis.

In entering upon the subject, I wish to
 say—merely to explain what might possibly
 be regarded as an omission on my part, that
 is, that my only purpose in this paper is to
 direct attention to the cause rather than the
phenomena of the disease, or mode of treat-
 ment. Also, that I do not believe in
causes hereditary although they are admitted

by most, if not all medical writers. It may appear like arrogance in me to advance an opinion which contravenes an old dictum of the profession; but, I ask to be allowed to enjoy a difference of opinion when the facts in the case seem to justify it without incurring the censure of my Teachers.

If I understand the term it means that there is some latent poison in the system or dyscrasia transmitted by parent to child. This has not been demonstrated by any of the ancient or modern methods of investigation. To take for granted what we know to be merely conjectural and what seems to

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necessitate the conclusion - that the human mind and eye cannot, even by the aid of science, penetrate further into the normal and abnormal conditions of the body - pre-stalls investigation and libels the human intellect.

Moreover, this condition, called by Medical writers *Pthisical*, is really nothing more than an enervation of the whole structure - hence, its great liability to be seriously acted upon by any disturbing course. This position I shall perhaps, be able, at least by implication, to render more conspicuous hereafter.

Rokitansky has assumed from his post-

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~~modern~~ examinations and analysis that
~~modern~~ tubercular consumption depends upon
Hyper-Fibrination of the Blood. It is
~~then~~ ~~modern~~ ~~in~~ ~~an~~ ~~in~~
not my intention here to deal with
the arguments in favor of this view which
must be derived from Chemical and Mi-
croscopical sources nor merely to consider
how far this excess of pseudo-fibrin in the
blood accounts for the phenomena of con-
sumption, nor to compare the simple excess
of fibrin in the blood as augmented by local
inflammation and rheumatism. There
is an increase also of Fibrin in the blood dur-
ing pregnancy, but it is not attended with any
~~change~~ ~~in~~ ~~quality~~ as in the other diseases men-

tioned. But to explain physiologically the process and origin of Rokitanovsky's tubercular element. There are, it is assumed, two physiological processes constantly going on in the animal body - *vita et mortua*.

The former is the process by which the fluid matters admitted into the cellulo-vascular structure are altered or assimilated and added to that structure, and the latter is that process by which "the parts worn out" are collected by the venous and lymphatic vessels, to be conveyed to excretory organs in order to be expelled from the body.

First - The parts concerned in the reproductive process: - The alimentary

canal is a musculo-membranous tube about thirty feet in length and lined throughout its whole extent by mucous membrane. It differs in structure, function and name in various parts of its course from the mouth to the anus.

The mouth, pharynx, oesophagus and stomach will require no anatomical description — but, the small intestine — the seat of functional abuse will demand a minute description in order to show that I have deduced from physiological and microscopical investigations, at least one, if not the principal cause of consumption — which is the direct and unavoidable result

of "Impaired Nutrition".

The small intestine is divided, for the convenience of description, into Duodenum, Jejunum and Ileum. The structure of the wall of the small intestine is composed of four coats - serous, muscular, fibro-areolar and mucous.

I shall not describe the serous, muscular and fibro-areolar coats, nor the following appendages of the mucous membrane, - simple follicles, duodenal, solitary and aggregated glands, as they are not concerned in the process to which I wish to direct attention.

The mucous membrane is a thick and highly vascular membrane covered

by villi. The villi, according to Bowman are minute conical processes of the mucous membrane of the small intestine, to which they are exclusively confined, they project from the free surface of the mucous membrane into the cavity of the intestine, covered by columnar epithelium, and seem admirably adapted, by their conformation, to become implanted, like so many little roots, in any fluid or semi-fluid material which may fill the bowel. They are numerous - numbering from fifty to seventy to the square line, - and give to the surface of the mucous membrane an appearance like that pro-

-duced by the pile of velvet. Each villus consists of a network of blood vessels and lacteals with granular corpuscles and fat globules in their interstices, inclosed in a thin prolongation from the mucous surface which forms their basement membrane. The office or function of the villi is the absorption of chyle. This process may be arrested and the chyle fixed in the lacteals by coagulation, if the bowel be suddenly filled with any alcoholic drink. This is no more *ipse dixit* it has been demonstrated. Hence, the fact of the coagulation by alcohol, of

chyle in the lacteal of the villi of the
 small intestine, is of the utmost im-
 portance in a practical point of view,
 - Since it is well known, and, I be-
 lieve generally admitted by all phy-
 siological writers, that the waste of
 the muscular fibre is greatly accelera-
 ted by any circumstance which cuts
 off the normal supply of the reparative ma-
 terial; - Consequently, the increase in
 the quantity of the basis substance of
 the muscular tissue, - Fibrin, - in the
 Blood, - owing to the arrest, by coagulation
 in the villi of the reparative material, is
 of a better quality than that which results

from the normal waste of the tissues.

This variety of fibrin - the result of muscular degeneration caused by the arrest in the lacteal system of the nutritive material by Alcohol, as I have already shown - is called pseudo-fibrin in contradistinction to true fibrin.

The former, effete material requires elimination, whilst the latter is used to build up the muscular structure; but, as the process by which true fibrin ^{made} is, has been stopped by the injudicious use of Alcoholic drinks during the process of the absorption of Chyle - pseudo-fibrin - augmented in quantity - backing

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an outlet, but finding that there is no organ provided, whose function it is to convert fibrin into its peculiar secretions becomes entangled in the parenchyma of the lungs and as a consequence of this insidious deposit, Phthisis results.

Having now shown, as far as the circumscribed space would allow, according to Physiological principles, clearly, and I think conclusively, the principal cause of the origin of Rokitansky's fibrinous excess—the conclusion is that Alcohol holding coagulating the Chyle is the principal cause of Phthisis Pulmonalis.

W. Cornell Chambers.